

ABSTRACT OF THE DISCLOSURE

A light beam is deflected by refraction and total internal reflection through a first prism, and projected through a first lens onto a scene that is to be scanned. The prism rotates, which varies the deflection angle and scans the beam across the scene along a scan line. Preferably, the successive side surfaces of the prism have different tilt angles relative to the rotation axis, so as to respectively deflect the beam in different deflection planes which cause successive scan lines of the beam across the scene. The emitted beam gives rise to a reflected beam from the scene, which is received through a second lens and deflected onto a photodetector through a second prism congruent to and rotating synchronously with the first prism. This apparatus is suitable as a laser scanning device for an object recognition system or a spacing distance regulation system of a motor vehicle.